

Health: The Design, Planning and Politics of How and Where We Live

- **Paper / Proposal Title:**

The Use of Living Walls in Egyptian Residential Buildings: Identifying the Perceptions and Challenges

- **Format:**

Written paper

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- **Abstract (300 words):**

The need for a better use of scarce planetary resources through appropriate architectural designs has never been more evident than it is today. Among the important advancements in this area is the use of wall greeneries for the reduction of energy consumption, carbon emissions, and urban temperatures in major municipal areas. 'Living walls' can be an important exertion to turn Mega cities, such as Cairo, into a better urban environment – both aesthetically and ecologically. It can actually be an ecological solution to the concrete jungle in informally planed areas of the capital. Although this may be true, this need is poorly reflected in actual residential buildings' design. Lately, several projects aiming to green the city have been emerging all over the urban metropolis through governmental and NGOs attempts. Such efforts need a great awareness of the economic, social, and environmental benefits of green walls

and facades across Egypt. By overcoming such challenges and taking advantage of such opportunities, a reasonable ratio of green areas can be reached in these areas soon.

The paper performs an investigation on the importance of Living Walls as a new architectural approach in Egypt while focusing on advancing the development of the market for green facades products and services. It also debates how informally planned residential settlements in Cairo could be improved and hence the quality of life of most of its residents through the development of the vertical gardens strategy. The overarching aim of the study is to identify attitudinal factors influencing the growth of the local green walls application in already existing informal areas within the City of Cairo. The results provide a sound basis from which architects can improve the implementation strategies of Green Walls and facades into their designs within the specific climatic context of hot arid regions.

• **Author(s) Biography (200 words each):**

Dr. Iman O. Gawad is an Associate Prof. of Architecture at the Department of Architecture, Faculty of Fine Arts, Helwan University, Egypt where she received her Bachelor degree in 1996. She finished her M.Arch. and Ph.D. degree specialised in Environmental Architecture also from the same faculty in 2001 and 2009 respectively. She obtained another M.Sc. degree from the School of Architecture, Faculty of Engineering, University College of Dublin, Republic of Ireland in 2004. She also holds the position of the Director of 'Helwan University's International Students Bureau'. She acts as an academic coordinator for various international programs and educational exchange between Helwan University and several European universities.

Outside of Helwan University, Dr. Gawad served as an adjunct faculty member at several national and International universities based in Cairo teaching all sequences of Architectural Design, History, and Environmental Control courses. She is actively engaged in teaching, research and postgraduate supervision in the areas of energy efficiency, shading and sustainable design. She has publications in many National and International Journals and Conferences, in addition to being a member of the editorial and Reviewing Committee for several international conferences and workshops.